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ABSTRACT

A national survey of distance education courses offered by higher education institutions identified the incidence of distance education courses delivered to remote (off-campus) locations through audio, video, or computer technologies. The study found that a third of institutions offered distance education courses, another quarter planned to offer such courses in the next 3 years, and 42 percent did not offer, and did not plan to offer, such courses in the next 3 years. A much greater percentage of public than private institutions offered distance education courses. Distance education offerings varied by school size and location: fewer small institutions and fewer institutions in the Northeast offered distance education. In academic year 1994-95, an estimated 25,730 distance education courses with different catalog numbers were offered by higher education institutions, and there were about 758,640 students formally enrolled in distance education courses in that year. Additional findings reported cover: the percentage of public and private two- and four-year colleges offering distance education courses; number of institutions offering or planning to offer distance education by geographic region, enrollment size, and type of institution; and percentage of colleges using different types of technology. (SW)

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NATIONAL CENTER FOR EDUCATION STATISTICS

ISSUE BRIEF

Distance Education in Higher Education Institutions: Incidence, Audiences, and Plans to Expand

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Distance education is emerging as an increasingly important component of higher education. For example, the Education Network of Maine, an independent arm of the Maine university system, televises college courses to 11 regional centers and other sites throughout the state, making available 85 courses and 14 degree programs which, in the fall of 1995, served about 2,900 students (*Chronicle of Higher Education*, May 31, 1996). Other university system and state networks for distance education include Colorado Electronic Community College, EdNet in Oregon, the Iowa Communications Network, the TeleLinking Network in Kentucky, and BadgerNet in Wisconsin. Cooperatives and consortia which cross state lines include the Western Governors University, a "virtual university" sponsored by the governors of 15 states (and one U.S. territory), and the Committee on Institutional Cooperation, which consists of 12 large universities, including Pennsylvania State University, the University of Iowa, Ohio State University, the University of Minnesota, the University of Wisconsin, and the University of Illinois (*Chronicle of Higher Education*, December 8, 1995).

These examples highlight the growing importance of distance education, but do not provide information about distance education on a national scale. To fill this information need, in 1995 the National Center for Education Statistics conducted a Survey on Distance Education Courses Offered by Higher Education Institutions, using the Postsecondary Education Quick Information System (PEQIS). For the study, *distance education* was defined as "education or training courses delivered to remote (off-campus) locations via audio, video, or computer technologies."

What Types of Institutions Offer Distance Education Courses?

In fall 1995 a third of the institutions offered distance education courses, another quarter planned to offer such courses in the next 3 years, and 42 percent did not offer, and did not plan to offer, such courses in the next 3 years. A much greater percentage of public than of private institutions offered distance education courses: 58 percent of public 2-year and 62 percent of public 4-year institutions, compared with 2 percent of private 2-year and 12 percent of private 4-year institutions. The percent of institutions offering distance education courses also varied by institutional size and geographic region, with fewer small institutions and fewer institutions in the Northeast offering distance education (table 1).

How Extensive Are Distance Education Course Offerings?

In academic year 1994–95, an estimated 25,730 distance education courses with different catalog numbers were offered by higher education institutions. Of these, 45 percent were offered by public 4-year institutions, 39 percent by public 2-year institutions, and 16 percent by private 4-year institutions. (Data for private 2-year institutions are not reported separately on this measure because there were too few such institutions offering distance education courses in the sample.) About half the institutions that offered distance education courses in fall 1995 offered 10 or fewer courses in academic year 1994–95, with 24 percent offering 1 to 4 courses and 21 percent offering 5 to 10 courses (figure 1).

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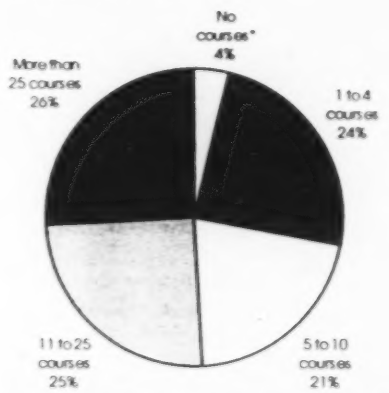
Table 1.—Percentage distribution of higher education institutions, by current and planned use of distance education: 1995

Institutional characteristics	Currently offering distance education courses	Planning to begin offering distance education courses in the next 3 years	No plans to offer distance education courses in the next 3 years
All institutions	33	25	42
Institutional type			
Public 2-year	58	28	14
Private 2-year	2	14	84
Public 4-year	62	23	14
Private 4-year	12	27	61
Geographic region			
Northeast	20	27	53
Southeast	31	28	41
Central	39	24	37
West	40	23	37
Enrollment			
Less than 3,000	16	27	56
3,000 to 9,999	61	24	15
10,000 or more	76	14	10

NOTE: Data are for higher education institutions in the 50 states, the District of Columbia, and Puerto Rico. Percents may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, Survey on Distance Education Courses Offered by Higher Education Institutions, 1995.

Figure 1.—Percentage distribution of numbers of distance education courses offered by higher education institutions in academic year 1994–95



*Approximately 4 percent of the institutions offered distance education courses in fall 1995, but did not offer such courses in academic year 1994–95.

NOTE: Data for higher education institutions in the 50 states, the District of Columbia, and Puerto Rico. Percents are based on institutions that offered distance education courses in fall 1995.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, Survey on Distance Education Courses Offered by Higher Education Institutions, 1995.

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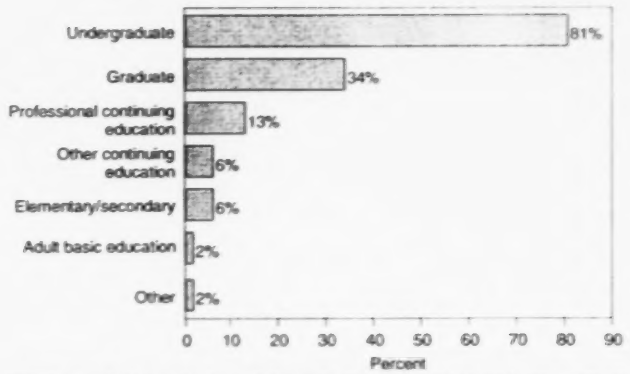
How Many Students and What Audiences Are Served by Distance Education Courses?

Out of about 14.3 million students enrolled in higher education institutions in fall 1994, about 758,640 students[1] formally enrolled in distance education courses in academic year 1994–95. Undergraduate and graduate students were seen as target audiences more than other types of students (figure 2). Eighty-one percent of institutions reported offering courses designed primarily for undergraduate students; 34 percent, for graduate students. Thirteen percent offered courses designed primarily for students in professional continuing education, and 6 percent or fewer offered courses designed primarily for each of the following: elementary/secondary students, adult basic education students, other continuing education students, and other types of students.

Figure 2.—Percent of higher education institutions currently offering distance education that offer distance education courses designed primarily for specific types of students: 1995



NOTE: Data are for higher education institutions in the 50 states, the District of Columbia, and Puerto Rico. The numbers of courses designed for various types of students are for fall 1995. Percents are based on institutions that offered distance education courses in fall 1995. Percents sum to more than 100 because an institution can offer different courses designed primarily for different types of students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, Survey on Distance Education Courses Offered by Higher Education Institutions, 1995.

Among potential audiences for distance education courses, professionals seeking recertification and other workers seeking skill updating or retraining were targeted by more institutions than were other types of individuals. Thirty-nine percent of institutions targeted professionals seeking recertification, and 49 percent targeted other workers seeking skill updating or retraining. Sixteen percent targeted individuals with disabilities, and 12 percent targeted military personnel. Non-English-speaking individuals and Native Americans/Alaskan Natives on tribal lands were targeted by 3 percent and 7 percent, respectively.

What Technologies Are Currently in Use and Are Planned for the Next Three Years?

Of the institutions offering distance education courses in fall 1995, 57 percent used two-way interactive video and 52 percent used one-way prerecorded video to deliver courses (table 2). About a quarter of the institutions used two-way audio with one-way video, as well as computer-based technologies other than two-way online interactions during instruction (for example, the Internet). Each of the other technologies was used by 14 percent or fewer of the institutions.

About three-quarters of the institutions that currently offer, or plan to offer, distance education courses expect to start or increase their use of two-way interactive video, two-way online (computer-based) interactions during instruction, and other computer-based technologies to deliver their distance education courses in the next 3 years (table 2). Fewer institutions had plans to start or increase their use of the other technologies, ranging from 8 percent planning to start or increase their use of audiographics to 49 percent planning to start or increase their use of one-way prerecorded video.

Table 2.—Percent of higher education institutions using various types of technologies to deliver distance education courses currently, and plans for use in the next 3 years by level of use: 1995

	Currently use	Plan to use in the next 3 years[2]		
Type of technology	Percent of institutions[1]	Reduce or keep the same number of courses	Start or increase number of courses	No plans
Two-way interactive video	57	2	79	19
Two-way audio, one-way video	24	7	35	58
One-way live video	9	6	28	66
One-way pre-recorded video	52	8	49	43
Audiographics	3	3	8	89
Two-way audio	11	6	20	75
One-way audio	10	6	11	83
Two-way online interactions	14	(+)	71	29
Other computer-based technology	22	1	79	20

(+) Less than 0.5 percent.

[1]Percentages are based on the number of all institutions that offered distance education courses in fall 1995. Percents sum to more than 100 because an institution can use more than one type of technology.

[2]For plans, percents are computed across each row, but may not sum to 100 because of rounding. Percents are based on all institutions currently offering or planning to offer distance education courses in the next 3 years.

NOTE: Data are for higher education institutions in the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, Survey on Distance Education Courses Offered by Higher Education Institutions, 1995.

What Factors Keep Institutions from Starting or Expanding Distance Education Courses?

Among the factors frequently reported as keeping institutions from starting or expanding their distance education course offerings to a "major extent" were program development costs (43 percent), limited technological infrastructure (31 percent), and equipment failures and costs of maintaining equipment (23 percent). Factors seen as "not at all" a deterrent included inability to obtain state authorization (79 percent); restrictive federal, state, or local policies (58 percent); legal concerns (57 percent); lack of support from administrators (60 percent); and lack of fit with the institution's mission (58 percent).

Future Plans

NCES plans to conduct another PEQIS survey on distance education in the near future. The questionnaire will contain some of the same items to establish trend data and other new items in order to gather data on distance education issues not covered in this survey.

Reference:

U.S. Department of Education. National Center for Education Statistics. *Distance Education in Higher Education Institutions*, NCES 98-062, by Laurie Lewis, Debbie Alexander, and Elizabeth Farris. Project Officer, Bernard Greene. Washington, DC: 1997.

[1] If a student was enrolled in more than one course, institutions were instructed to count the student for each course in which he or she was enrolled. Thus, the overall number contains duplications.

Issue Briefs present information on education topics of current interest. This **Issue Brief** was prepared by Bernard Greene, National Center for Education Statistics, Data Development and Longitudinal Studies Group, and Anne Meek, Education Statistics Services Institutes. For information, contact Bernard Greene at (202) 219-1366 or at Bernard_Greene@ed.gov. To order additional copies of this **Issue Brief** or other NCES publications, call 1-800-424-1616. NCES publications are also available on the Internet at http://www.nces.ed.gov/.

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